AUS920011014US1
Hack et al.
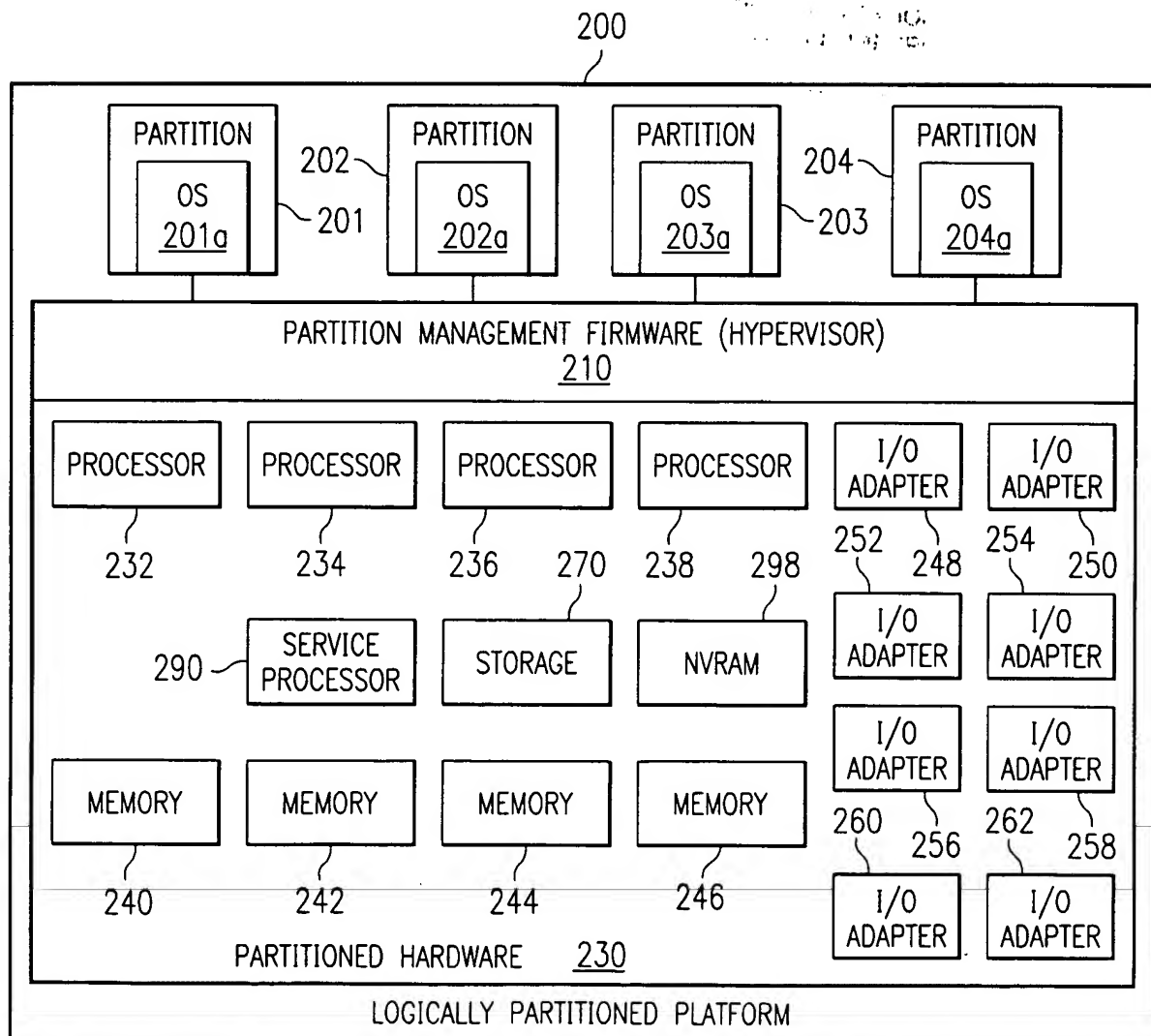System, Method, and Computer Program Product for Preventing
Machine Crashes Due to Hard Errors in Logically Partitioned Systems
1/4

FIG. 1

FIG. 3

AUS920011014US1
Hack et al.
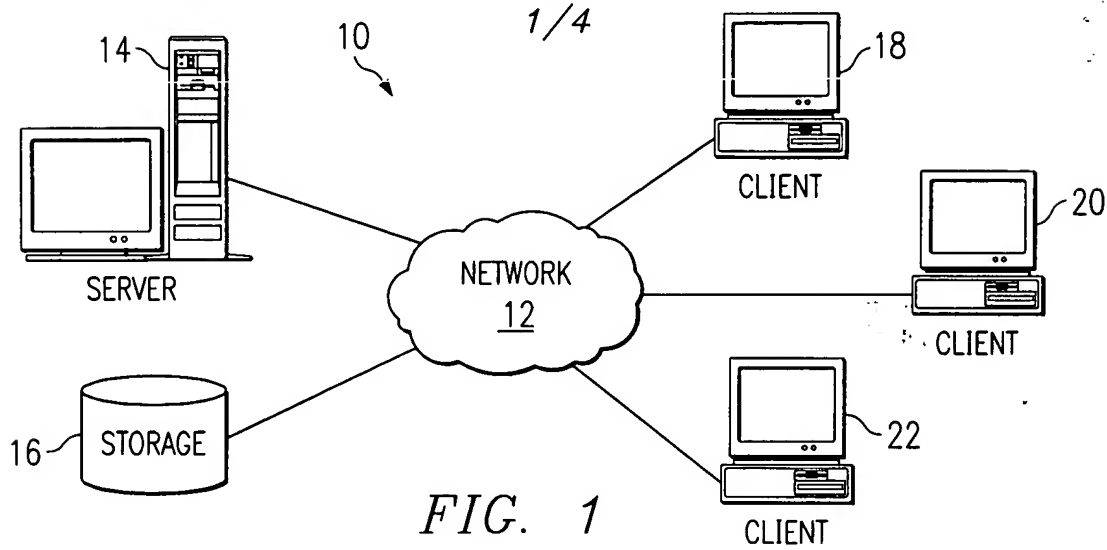System, Method, and Computer Program Product for Preventing
Machine Crashes Due to Hard Errors in Logically Partitioned Systems
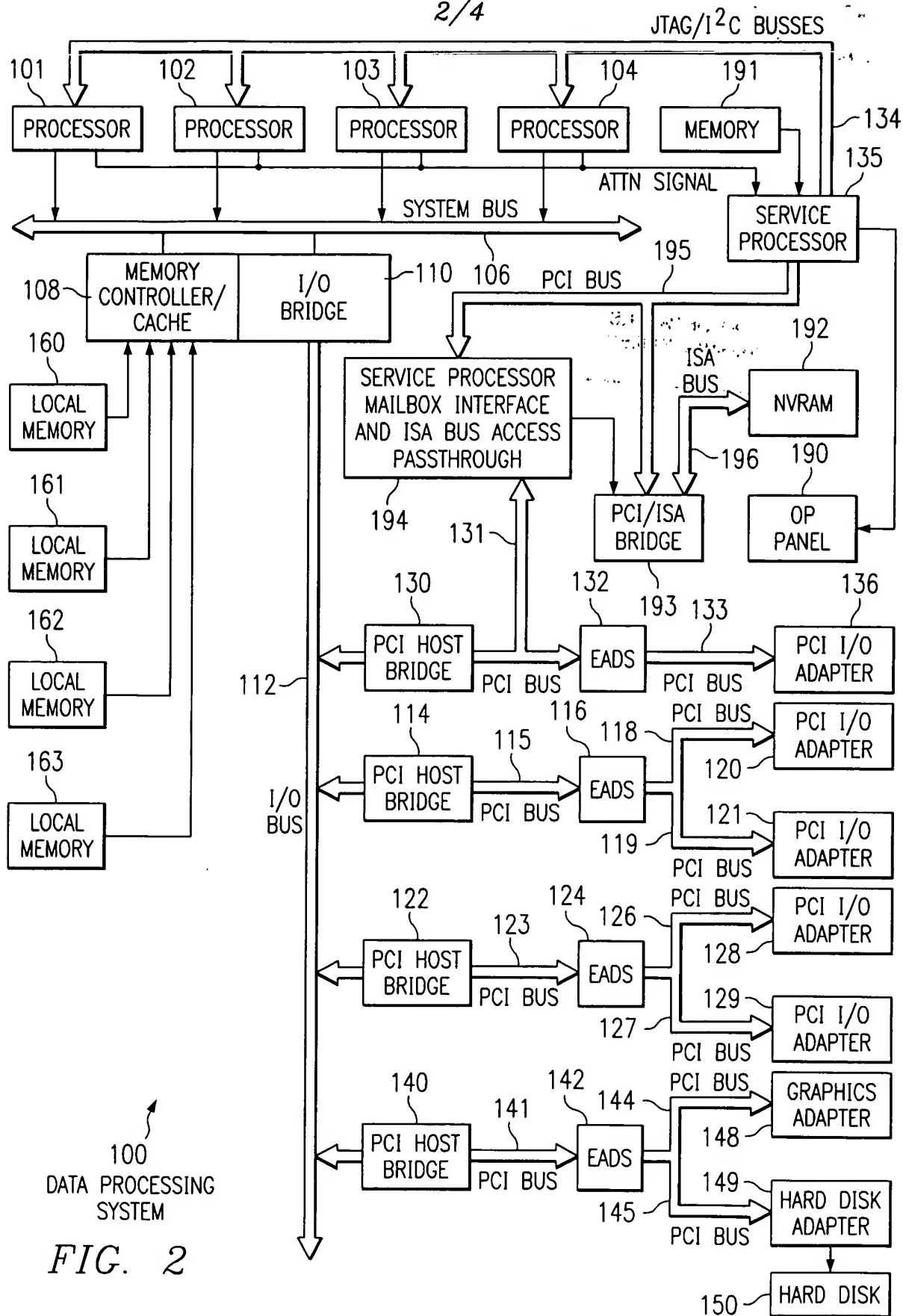2/4

FIG. 2

100
DATA PROCESSING
SYSTEM

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Machine Crashes Due to Hard Errors in Logically Partitioned Systems
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400 — (START)

402 — ESTABLISH AND INITIALIZE A
SEPARATE COUNTER FOR
EACH PROCESSOR

404 — DETECT AN OCCURRENCE OF AN
ERROR IN A PROCESSOR

CONTROL RETURNED TO PARTITION
TO CONTINUE ITS PROCESSING

406 — INCREMENT COUNTER ESTABLISHED
FOR THIS PROCESSOR

408 — IS COUNT
GREATER THAN A
THRESHOLD? — NO

YES

410 — TRANSMIT REQUEST TO SERVICE
PROCESSOR TO DECONFIGURE
THIS PROCESSOR

412 — READ NVRAM ENTRIES

DOES AN
ENTRY EXIST IN
NVRAM THAT INDICATES
THIS PROCESSOR
IS "BAD"? — NO

414

416 — RETURN CONTROL
TO PARTITION,
THUS ALLOWING
OTHER
PARTITIONS TO
PROCESS ERRORS

YES

418 — TRANSMIT A REQUEST TO
SERVICE PROCESSOR TO
REBOOT THIS PARTITION

420 — (STOP)

FIG. 4

AUS920011014US1
Hack et al.
System, Method, and Computer Program Product for Preventing
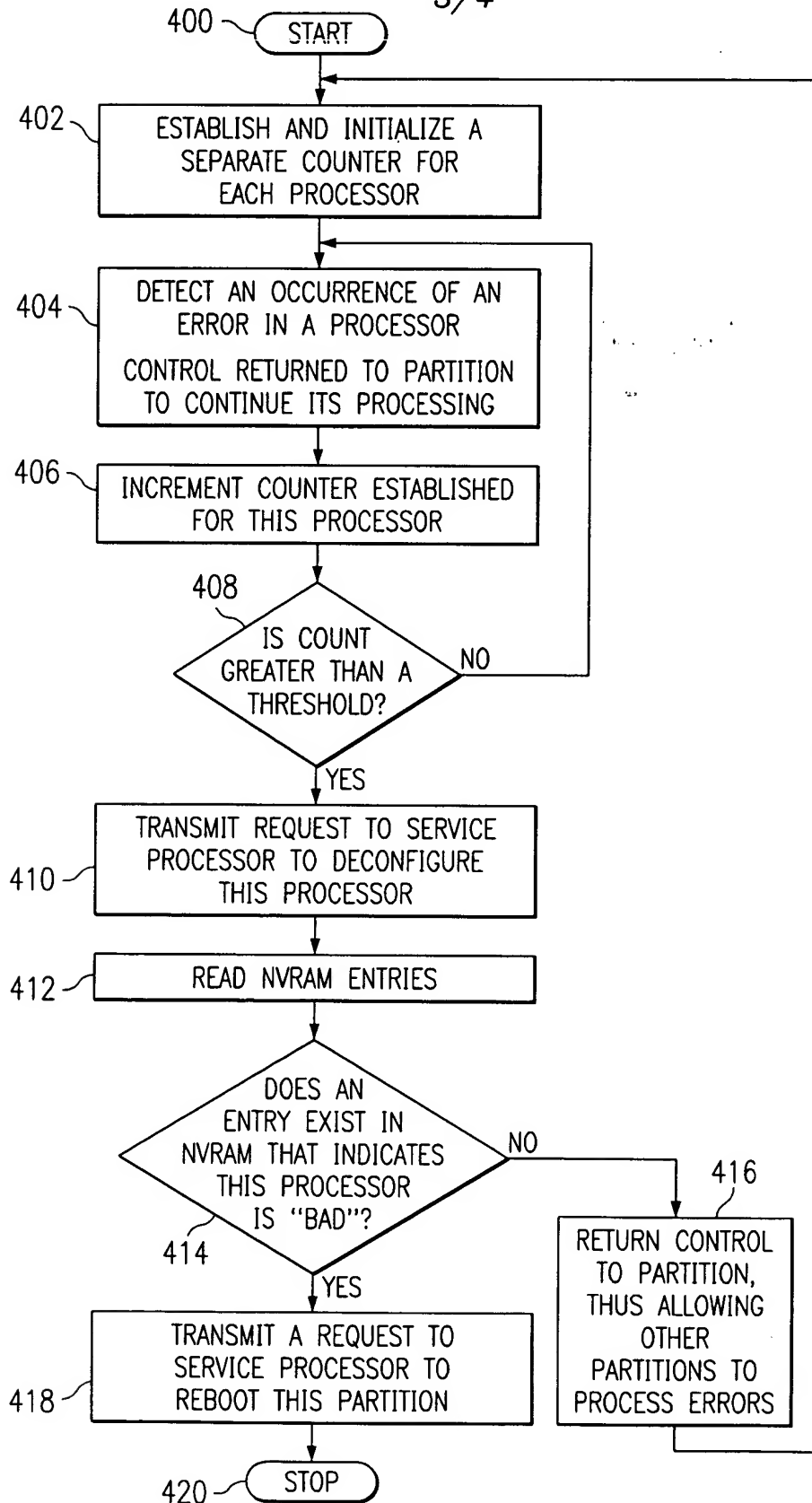Machine Crashes Due to Hard Errors in Logically Partitioned Systems
4/4

500 — START

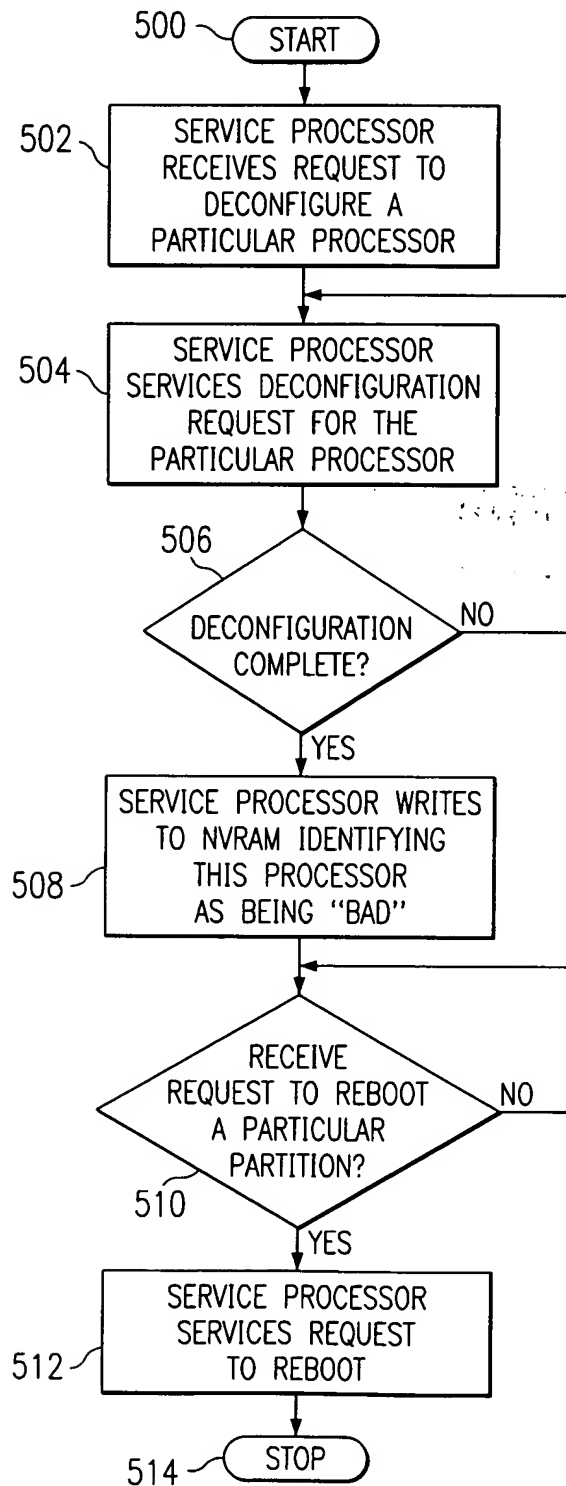502 — SERVICE PROCESSOR
RECEIVES REQUEST TO
DECONFIGURE A
PARTICULAR PROCESSOR

504 — SERVICE PROCESSOR
SERVICES DECONFIGURATION
REQUEST FOR THE
PARTICULAR PROCESSOR

506 — DECONFIGURATION
COMPLETE? — NO

YES

508 — SERVICE PROCESSOR WRITES
TO NVRAM IDENTIFYING
THIS PROCESSOR
AS BEING "BAD"

510 — RECEIVE
REQUEST TO REBOOT
A PARTICULAR
PARTITION? — NO

YES

512 — SERVICE PROCESSOR
SERVICES REQUEST
TO REBOOT

514 — STOP

FIG. 5